

TO: Board Members

THROUGH: Kevin Patteson, Executive Administrator
John Steib, Chief Deputy Executive Administrator

FROM: Jeff Walker, Deputy Executive Administrator
Darrell Nichols, Director, Regional Water Planning and Development
Augustine Tambe, Engineer Reviewer

DATE: February 11, 2014

SUBJECT: Briefing on the Status of the Lake Alan Henry Project

ACTION REQUESTED

None. This is for informational purposes only.

HISTORY

On March 25, 2008, The Texas Water Development Board (Board) approved the first of several applications by the City of Lubbock (City) for funding from the Water Infrastructure Fund (WIF) for projects that enabled the City to utilize Lake Alan Henry as a water supply source.

BACKGROUND

The City has historically relied upon groundwater as its source of potable water. As the City population increased in the early 1960's, the City joined with other member cities of the Canadian River Municipal Water Authority to initiate the construction of Lake Meredith on the Canadian River. Starting in 1965, Lake Meredith provided most of the City's surface water supply which made up 70% of the total supply needs. As the City's population continued to grow and demand for water increased, the City, together with Brazos River Authority, acquired rights for surface water impoundment on the South Fork of the Double Mountain Fork of the Brazos River. The City completed the construction of the John T. Montford Dam and Lake Alan Henry in October 1993. The 2007 State Water Plan did not forecast the need to use water from Lake Alan Henry by the City until the year 2020. However, drought conditions within the past several years and continued population growth impacted available surface and groundwater supplies for the City. Also, ground water models of the Ogallala Aquifer showed declining groundwater levels for the City's water wells. In addition to its 230,000 residents, the City has wholesale water contracts with several political subdivisions including, but not limited to, the following:

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City of Ransom Canyon; City of Shallowater; City of Littlefield; Lubbock Cooper ISD; Lubbock County Water Control & Improvement District; Lubbock Reese Redevelopment Authority, etc. These events forced the City to re-evaluate its water supplies. The City concluded that to meet its water demand, it needed water from Lake Alan Henry before year 2020.

PROJECT FUNDING

The City initially received a loan commitment from the WIF in the amount of \$22,615,000 in March 2008. The funds were used for engineering planning, design, and special engineering services. As part of the planning and design phases, the City divided the construction of a 50 mile Lake Alan Henry Raw Water Transmission Line project into five construction phases as follows:

- Phase I consisted of 21.3 miles of 42-inch diameter raw water transmission line that began at a planned pump station below the John T. Montford Dam at Lake Alan Henry and then continued northwest ending at a second pump station located near the City of Post, Texas.
- Phase II consisted of 13.7 miles of 48-inch diameter raw water transmission line that extended from the Post Booster Pump Station to the Southland Booster Pump Station.
- Phase III consisted of approximately 15.3 miles of 48-inch diameter raw water transmission line that extended from the Southland Booster Pump Station to the water treatment plant site.
- Phase IV consisted of the construction of a 50 mgd water treatment plant in five phases of 10 mgd each.
- Phase V included the construction of 13 miles of finished water line from the proposed water treatment plant to the City's water distribution system.

In April 2009, the City received a Board WIF loan commitment for \$19,945,000 for the construction of Phase I of the project. Eight months later, in December 2009, the City opened bids and construction of Phase I began on March 2010 and was completed February 2011.

In January 2010, the City received its final WIF commitment for \$41,000,000 for the construction of Phase II, Phase III, and Phase V of the project. Construction of these phases began in January 2011 and was completed by February 2012.

Due to the limited amount of WIF available from the TWDB, the City utilized local funds for construction of Phase IV. Construction of Phase IV began April 2011 and was completed by July 2012.

STATUS

The pipeline project is operational and provides up to a maximum flow rate of 47 million gallons per day of raw water to the City's existing water treatment plant. This represents approximately 40 percent of the City's water supply. Construction of the TWDB funded phases of the project were completed on schedule and with no construction change orders. The City had its ribbon cutting ceremony to inaugurate the completion of the project in August 2012. The total cost for the entire project was approximately \$265 million with the Board providing \$83,560,000 of that cost. The City has indicated that the use of the TWDB funding will save the City \$15 million in interest over the life of the bonds.